53. An isolated polynucleotide encoding a protease of claim 48.

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- The polynucleotide of claim 53, which has a nucleic acid sequence of SEQ ID NO: 11. 54.
- A nucleic acid construct comprising the polynucleotide of claim 54 operably linked to one 55. or more control sequences that direct the production of the protease in a suitable expression host.
- A recombinant expression vector comprising the nucleic acid construct of claim 55, a 56. promoter, and transcriptional and translational stop signals.
- 57. A recombinant host cell comprising the nucleic acid construct of claim 55.
- 58. A method for producing a protease comprising
- cultivating the recombinant host cell of claim 57 under conditions suitable for production of the protease; and
  - (b) recovering the protease.
- A modified protease, comprising one or more of the following mutations in the amino acid 59. sequence of a parent protease:
- at least one Asn and/or Gly in an Asn-Gly sequence has been modified by (a) substitution, deletion and/or insertion to change or remove said Asn-Gly sequence;
  - (b) a substitution or deletion of any Glu and/or Asp;
- a substitution of the amino acid occupying the first and/or second position following (c) any Glu or Asp with Pro;
  - a substitution or deletion of any amino acid susceptible to oxidation; (d)
  - (e) a substitution or deletion of any Trp at the surface; and
  - a substitution of any Tyr at the surface; (f)

wherein the parent protease has an amino acid sequence comprising amino acids 1-215 of SEO ID NO: 12 or a fragment thereof that has protease activity.



- The modified protease of claim 59, comprising a modification of at least one Asn and/or 60. Gly in an Asn-Gly sequence by substitution, deletion and/or insertion to change or remove said Asn-Gly sequence.
- The modified protease of claim 60, comprising a substitution of Asn and/or Gly in an Asn-61. Gly sequence with A, P, Q, S, T or Y.
- 62. The modified protease of claim 60, comprising one or more of the following mutations N45{\*,A,Q,S,P,T,Y};

N45{\*,A,Q,S,P,T,Y}+G46{\*,A,Q,S,P,T,Y};

N45{\*,A,Q,S,P,T,Y}+N74{\*,A,Q,S,P,T,Y};

N45{\*,A,Q,S,P,T,Y}+N74{\*,A,Q,S,P,T,Y}+N187{\*,A,Q,S,P,T,Y};

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 $N45\{^*,A,Q,S,P,T,Y\}+N74\{^*,A,Q,S,P,T,Y\}+N187\{^*,A,Q,S,P,T,Y\}+N192\{^*,A,Q,S,P,T,Y\};\\$ 

N45{\*,A,Q,S,P,T,Y}+N74{\*,A,Q,S,P,T,Y}+N192{\*,A,Q,S,P,T,Y};

N45{\*,A,Q,S,P,T,Y}+N187{\*,A,Q,S,P,T,Y};

N45{\*,A,Q,S,P,T,Y}+N187{\*,A,Q,S,P,T,Y}+N192{\*,A,Q,S,P,T,Y};

N45{\*,A,Q,S,P,T,Y}+N192{\*,A,Q,S,P,T,Y};

G46{\*,A,Q,S,P,T,Y};

N74{\*,A,Q,S,P,T,Y};

N74{\*,A,Q,S,P,T,Y}+G75{\*,A,Q,S,P,T,Y};

N74{\*,A,Q,S,P,T,Y}+N187{\*,A,Q,S,P,T,Y};

N74{\*,A,Q,S,P,T,Y}+N187{\*,A,Q,S,P,T,Y}+N192{\*,A,Q,S,P,T,Y};

N74{\*,A,Q,S,P,T,Y}+N192{\*,A,Q,S,P,T,Y};

G75{\*,A,Q,S,P,T,Y};

N187{\*,A,Q,S,P,T,Y};

N187{\*,A,Q,S,P,T,Y}+N192{\*,A,Q,S,P,T,Y};

G188{\*,A,Q,S,P,T,Y};

N192{\*,A,Q,S,P,T,Y};

N192{\*,A,Q,S,P,T,Y} + G193{\*,A,Q,S,P,T,Y}; and

G193{\*,A,Q,S,P,T,Y}.

63. The modified protease of claim 59, comprising a substitution or deletion of any Glu and/or



- 64. The modified protease of claim 63, comprising the substitution of any Glu or Asp with Ala.
- 65. The modified protease of claim 64, comprising E81A, E143A, E151A, E202A, D5A, D6A, D69A, D96A, D103A, D135A, D152A, D161A, and/or D173A.
- 66. The modified protease of claim 59, comprising a substitution of the amino acid occupying the first and/or second position following any Glu or Asp with Pro.
- 67. The modified protease of claim 59, comprising a substitution or deletion of any amino acid susceptible to oxidation;
- 68. The modified protease of claim 67, wherein the amino acid susceptible to oxidation is methionine.
- 69. The modified protease of claim 68, comprising a substitution of methionine with A, E, I, K, L, N, Q, or S.
- 70. The modified protease of claim 69, comprising one or more of M67 $\{*,S,A,N,Q,K\}$ ; M79 $\{*,S,A,N,Q,K\}$ ; M137 $\{*,S,A,N,Q,K\}$ ; M144 $\{*,S,A,N,Q,K\}$ ; and M171 $\{*,S,A,N,Q,K\}$ .
- 71. The modified protease of claim 59, comprising a substitution or deletion of any Trp at the surface.
- 72. The modified protease of claim 71, comprising a substitution of any said Trp with F, G, Q, or T.
- 73. The modified protease of claim 71, comprising W142{F,G,Q,T,}.
- 74. The modified protease of claim 59, comprising a substitution of any Tyr at the surface.—.
- 75. The modified protease of claim 74, comprising a substitution of Tyr with Phe or Trp.

- 76. The modified protease of claim 74, comprising a substitution of Tyr at position 19, 24, 50, 57, 64, 83, 88, 95, 112, 132, 157, 158, 186, and/or 206.
- 77. The modified protease of claim 76, comprising

Y19{F,W}

Y24{F,W}

Y50{F,W}

Y57{F,W}

Y64{F,W}

Y83{F,W}

Y88{F,W}

Y95{F,W}

Y112{F,W}

Y132{F,W}

Y157{F,W}

Y158{F,W}

Y186{F,W} and/or

Y206{F,W}.

- A detergent composition comprising a modified protease of claim 59 and a surfactant.
- 79. The detergent composition of claim 78, further comprising at least one further enzyme selected from the group consisting of amylase, cellulase, lipase, oxidase, peroxidase, or another protease.
- 80. An isolated polynucleotide encoding a modified protease of claim 59.
- 81. A nucleic acid construct comprising the polynucleotide of claim 80 operably linked to one or more control sequences that direct the production of the protease in a suitable expression host.
- 82. A recombinant expression vector comprising the nucleic acid construct of claim 81, a promoter, and transcriptional and translational stop signals.

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- 83. A recombinant host cell comprising the nucleic acid construct of claim 81.
- 84. A method for producing a modified protease comprising
- (a) cultivating the recombinant host cell of claim 83 under conditions suitable for production of the modified protease; and
  - (b) recovering the modified protease.